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PATENT
Attorney Docket No. 81836

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
SUSAN COTTRELL)
Serial No.: 10/068,553) Group Art Unit: 1645
Filed: February 6, 2002) Examiner: Unknown
For: QUANTITATIVE METHYL-)
ATION DETECTION IN DNA)
SAMPLES)

Box Missing Parts
Commissioner for Patents
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

Prior to examination of the above-identified patent application, please enter the amendment below.

IN THE SPECIFICATION:

Please amend the specification as follows:

After the Abstract, please add the enclosed paper copy of the SEQUENCE LISTING.

IN THE CLAIMS:

Please amend claims 9-11 and 13-24 as follows:

9. (Amended) A method according to claim 1, characterized in that the amplification reaction is achieved with the polymerase chain reaction (PCR).

10. (Amended) A method according to claim 1, characterized in that the probe contains only one CpG.

11. (Amended) A method according to claim 1, characterized in that the probe contains several CpGs.

13. (Amended) A method according to claim 1, characterized in that the probe can be end labeled or internally labeled.

14. (Amended) A method according to claim 1, characterized in that the methylation information is determined by the change in fluorescence intensity during subsequent rounds of PCR.

15. (Amended) A method according to claim 1, characterized in that the sample DNA is only amplified by chosen PCR primers if a certain methylation state is present at a specific site in the sample DNA.

16. (Amended) A method according to claim 1, characterized in that the sample DNA is only amplified if a certain methylation state was present at a specific site in the sample DNA, the sequence context of which is essentially complementary to one or more oligonucleotides or PNA oligomers which are additionally used in the PCR reaction.

17. (Amended) A method according to claim 1, characterized in that the amplification from the 3'-end of the probe is blocked by phosphorylation.

18. (Amended) A method according to claim 1 that a melting curve is generated at the end of the PCR to gather additional data.

19. (Amended) A method according to claim 1 wherein the fluorescent moiety is a fluorescent dye, a rhodamine dye, or a cyanine dye.

20. (Amended) A method according to claim 1 wherein the quencher moiety is a rhodamine dye.

21. (Amended) A method according to claim 1 wherein the deamination treatment of the DNA is performed with a bisulfite reagent.

22. (Amended) A method according to claim 1 whereby the DNA sample is cleaved prior to deamination treatment with restriction endonucleases.

23. (Amended) A method according to claim 1 whereby the DNA sample is isolated from mammalian sources e.g. cell lines, blood, sputum, faeces, urine, cerebrospinal fluid, tissue embedded in paraffin, for example, ocular tissue, intestine, kidney, brain, heart, prostate, lung, chest or liver, histological slides and all possible combinations.

24. (Amended) Use of a pre-treated genomic DNA according to claim 1 for the determination of the methylation status of a corresponding genomic DNA.

REMARKS

No claims have been canceled or added herein. Claims 9-11 and 13-24 have been amended herein. Therefore, claims 1-25 are under active consideration.

The specification has been amended herein to include the enclosed paper copy of the SEQUENCE LISTING. No new matter is added thereby.

It is respectfully submitted that the present application is in condition for allowance. Prompt and favorable action is earnestly solicited.

If there are any fees due in connection with the filing of this paper that are not accounted for, the Examiner is authorized to charge the fees to our Deposit Account No. 11-1755. If a fee is

required for an extension of time under 37 C.F.R. 1.136 that is not accounted for already, such an extension of time is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: July 24, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box Missing Parts, Commissioner for Patents, Washington, D.C. 20231 on July 24, 2002

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